

SLAMF2/CD48 Protein, Rat (HEK293, His)

Cat. No.:	HY-P74541
Synonyms:	CD48 antigen; SLAMF2; TCT.1; CD48; BCM1; BLAST1
Species:	Rat
Source:	HEK293
Accession:	P10252 (F23-R216)
Gene ID:	245962
Molecular Weight:	32-50 kDa

PROPERTIES

AA Sequence	<p>F Q D Q S V P N V N A I T G S N V T L T I L K H P L A S Y Q R L T W L H T T N Q</p> <p>K I L E Y F P N G K K T V F E S V F K D R V D L D K T N G A L R I Y N V S K E D</p> <p>R G D Y Y M R M L H E T E D Q W K I T M E V Y D L V S K P A I K I E K T K N L T</p> <p>D S C H L R L S C K V E D Q G V D Y T W Y E D S G P F P Q R N P G Y V L E I T I</p> <p>T P H N K S T F Y T C Q V S N P V S S E N D T L Y F I P P C T L A R</p>
Biological Activity	Measured by its binding ability in a functional ELISA. Immobilized 2B4/CD244 at 5µg/mL (100µL/well) can bind Rat SLAMF2. The ED ₅₀ for this effect is 2.78 µg/mL.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	SLAMF2, also known as CD48, is a glycosylphosphatidylinositol (GPI)-anchored cell surface glycoprotein that plays a crucial role in immune cell regulation. Through its N-terminal immunoglobulin domain, SLAMF2 interacts with cell surface receptors, such as 2B4/CD244 or CD2, to modulate immune cell function and activation. In T-cell signaling transduction, SLAMF2 forms complexes with CD2, facilitating the recruitment of the Src family protein kinase LCK and LAT to the TCR/CD3
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complex. This interaction leads to the phosphorylation and subsequent activation of LCK. Additionally, SLAMF2 induces the phosphorylation of the cytoplasmic immunoreceptor tyrosine switch motifs (ITSMs) of CD244, initiating signaling events that culminate in the formation of the immunological synapse and the targeted release of cytolytic granules containing perforin and granzymes by T-lymphocytes and NK-cells. SLAMF2 establishes direct interactions with CD2, CD244, and LCK, contributing to its regulatory role in immune responses.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA